Remark

Applicants respectfully request reconsideration of this application as amended. Claims 1, 4, 5, 8 and 22 have been amended. Claims 11-21 have been previously cancelled. Therefore, claims 1-10 and 22-32 are present for examination.

35 U.S.C. §112 Rejection

The Examiner has rejected claims 1 and 22 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 1 and 22 are amended to remove the "initiating" and "providing" terminology. The Examiner is respectfully referred to page 19, lines 10 et seq. for the explanation of how a packet is forwarded to a next packet-processing task. The description of Figures 7 and 8 on pages 18 and 20 provide detail about the packet descriptor. The packet-processing applications are introduced in the context of Figure 4, elements 460, 470 and 480 and their operation are described in the subsequent sections of the application.

For the record, Applicants respectfully submit that the original terminology is fully supported as shown, in part, by the original claims. The amendment has been made to expedite the prosecution of the application.

35 U.S.C. §101 Rejection

The Examiner has rejected claim 22 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Claim 22 has been amended to refer to a tangible article of manufacture. If the Examiner does not agree that this amendment traverses the rejection, then Applicants respectfully request that the Examiner contact the undersigned to propose an alternative amendment.

35 U.S.C. §103 Rejection

Chen in view of Molitor

The Examiner has rejected claims 1-10 and 22-32 under 35 U.S.C. §103 (a) as being unpatentable over Chen, U.S. Application Patent No. 2002/0116527 ("Chen") in view of Molitor, U.S. Patent No. 6,661,799 ("Molitor"). Chen shows an identity independent distribution hash function used for looking up an address table. There are multiple applications that each would appear to have their own table (paragraph 32 refers to flow table, meter table, routing table, and filtering table.). The specification is directed to the flow table as its primary example. The IID has function is generated by multiplying the flow address with the IID matrix (paragraph 34). The header information of the incoming packet is used as the flow address (paragraph 25). Paragraphs 54 and 55 sum up the approach in Chen.

While there would appear to be multiple applications and each one can use an IID hash function for table lookup, there does not appear to be any explicit suggestion that different applications use the same hash function. On the contrary, since the different applications use different tables, different hash functions would seem to be in order.

There is also no explicit suggestion of a packet descriptor, nor of translating the header of a packet after generating the hash function.

The Examiner has quoted specifically from paragraph 27 in the Response to Arguments section of the outstanding Office action. The text continues after quoted section to explain that the flow is based on the packet header. The hash into the flow table is then a pointer to find the stored packet header. If the packet header were to be translated, the whole flow table process described in Chen would break down. The Examiner has suggested that NAT is implicit in Chen, but Chen does not imply it. While some network devices perform NAT, there is nothing in Chen that would imply or suggest that NAT would or could be successfully performed between the applications that rely on the flow table. Applicants respectfully suggest that an address translation between application would render the flow table unusable.

Referring the Claim 1, as an example, it has been amended to clarify some of the elements of the invention and their timing. Claim 1 now refers to a packet descriptor that is forwarded to the second packet processing application. An intermediate operation has also been brought more clearly than before in the element of "translating the header...". Notice that the cache lookup key is based on the header and the header is then translated. Applicants respectfully submit that the prior art does not show generating a cache lookup key based upon an original header, translating the header and then using the same cache lookup key in a second application to access the same cache table.

Molitor is not discussed herein as it does not appear to be relied upon for the elements discussed above.

All of the claims are believed to be allowable for the reasons provided above. The express additional limitations of the dependent claims may provide additional grounds for allowance, however, they are not discussed in the interests of easing the prosecution of the application.

Conclusion

Applicants respectfully submit that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicants respectfully request the rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.
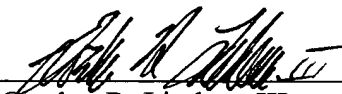
Request for an Extension of Time

Applicants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Charge our Deposit Account.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: <u>March 8, 2007</u>

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